

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KURT MOHR and THOMAS WAGNER

Appeal No. 1999-1735
Application No. 08/745,978¹

ON BRIEF

Before COHEN, FRANKFORT, and NASE, Administrative Patent Judges.
NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 23 to 38, 41 to 45, 47 and 55. Claims 57 to 75 have been allowed. Claims 39, 40, 48 to 54 and 56 have been objected to as depending from a non-allowed claim. Claims 1 to 22 and 46 have been canceled.

¹ Application for patent filed November 8, 1996.

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We AFFIRM.

BACKGROUND

The appellants' invention relates to a brake actuation unit. An understanding of the invention can be derived from a reading of exemplary claim 23, which appears in the appendix to the appellants' brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Hoenick 1984	4,435,021	March 6,
Rath 26, 1984	4,456,309	June
Akita et al. 1996 (Akita)	5,573,314	Nov. 12, (filed Feb. 22, 1995)

Claims 23 to 38, 41 to 45, 47 and 55 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hoenick or Rath in view of Akita.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejection, we make reference to the answer (Paper No. 15,

mailed January 8, 1999) for the examiner's complete reasoning in support of the rejection, and to the brief (Paper No. 14, filed December 21, 1998) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

In the brief (pp. 5-6), the appellants stated that claims 23, 24, 27, 28, 30, 31, 33-35, 37, 38, 41-45, 47 and 55 stand or fall together as a first group and that claims 25, 26, 29, 32 and 36 stand or fall together as a second group.

In accordance with the appellants grouping of claims, arguments provided, and 37 CFR § 1.192(c)(7), we will review

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only the rejections of claims 23 and 25 to decide the appeal
on the rejection under 35 U.S.C. § 103.

Claims 23 and 25

We sustain the rejection of claims 23 and 25 under 35
U.S.C. § 103.

Claim 23 recites a brake actuation unit comprising, inter alia, a cylinder/piston arrangement having a housing defining a cylinder, a piston, and a pressure chamber; a brake lining acted upon by the cylinder/piston arrangement; a hydraulic pump disposed substantially within the housing which is in direct hydraulic communication with the pressure chamber of the cylinder/piston arrangement; and a motor for driving the hydraulic pump.

Claim 25 reads as follows:

A brake actuation unit according to Claim 23,
characterized in that the hydraulic pump is designed to
be self-locking.

The teachings of the applied prior art are set forth on
pages 7-9 of the brief and pages 3-4 of the answer.

In applying the test for obviousness,² the examiner reached the conclusion (answer, p. 4) that it would have been obvious to have modified each of the principal references to Hoenick and Rath to directly connect the outlet of the respective pump to the pressure chamber of the piston/cylinder arrangement as taught by Akita. Implicit in this rejection is the examiner's view that the modifications of either Hoenick or Rath by the teachings of Akita would result in an apparatus which corresponds to the apparatus recited in the claims under appeal in all respects.

The arguments advanced by the appellants (brief, pp. 6-14) are unpersuasive for the following reasons.

First, the appellants argue the deficiencies of each reference on an individual basis. However, it is well settled that nonobviousness cannot be established by attacking the

² The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981).

references individually when the rejection is predicated upon a combination of prior art disclosures. See In re Merck & Co. Inc., 800 F.2d 1091, 1097, 231 USPQ 375, 380 (Fed. Cir. 1986).

Second, the appellants argue there is no suggestion, absent impermissible hindsight, to combine the references as proposed by the examiner. We do not agree.

When it is necessary to select elements of various teachings in order to form the claimed invention, we ascertain whether there is any suggestion or motivation in the prior art to make the selection made by the appellants. It is impermissible, however, simply to engage in a hindsight reconstruction of the claimed invention, using the appellants' structure as a template and selecting elements from references to fill the gaps. The references themselves must provide some teaching whereby the appellants' combination would have been obvious. In re Gorman, 933 F.2d 982, 986, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991) (citations omitted). That is, something in the prior art as a whole must suggest the desirability, and

thus the obviousness, of making the combination. See In re Beattie, 974 F.2d 1309, 1312, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992); Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick Co., 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed. Cir. 1984).

In this case, the prior art (i.e., Hoenick³ and Akita) clearly teach two well-known alternative pumping systems for supplying braking fluid to the brake actuator. In Hoenick's system, the housing of various braking equipment in the engine compartment is obviated by having an independent braking system for each wheel.⁴ Each of Hoenick's independent braking systems include a unidirectional pump 1 with associated valves 4, 9 for controlling the flow of braking fluid to and from the reservoir R and the brake actuator 8. In Akita's system, a bidirectional gear pump 20 is in direct hydraulic communication (i.e., has an always open/unimpeded flow path)

³ We consider the teachings of Rath to be redundant to the teachings of Hoenick. Accordingly, we will not further consider the teachings of Rath.

⁴ See column 6, lines 1-16.

with a wheel cylinder 24 or a brake caliper 130. In our opinion, in applying the above-noted test for obviousness, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Hoenick's braking system to have utilized a bidirectional gear pump for the self evident advantages thereof (e.g., no need for any valving between the pump and the brake actuator).

Lastly, the appellants argue that even if the references were combined as proposed by the examiner, the combination would still fall short of the claimed invention. We do not agree. With respect to claim 23,, as pointed out above, it is our view that the combined teachings of Hoenick and Akita would have suggested a hydraulic pump disposed substantially within the housing of piston/cylinder arrangement which is in direct hydraulic communication with the pressure chamber of the cylinder/piston arrangement. With respect to claim 25, it is our view that claimed hydraulic pump "designed to be self-locking" is readable on the bidirectional gear pump disclosed by Akita especially in view of the appellants' specification

(p. 15, last line, and claim 55) which discloses that a gear pump is self-locking.

For the reasons stated above, the decision of the examiner to reject claims 23 and 25 under 35 U.S.C. § 103 is affirmed.

Claims 24, 26 to 38, 41 to 45, 47 and 55

In accordance with the appellants above-noted grouping of claims and 37 CFR § 1.192(c)(7), claims 24, 26 to 38, 41 to 45, 47 and 55 fall with claims 23 and 25. Thus, it follows that the decision of the examiner to reject claims 24, 26 to 38, 41 to 45, 47 and 55 under 35 U.S.C. § 103 is also affirmed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 23 to 38, 41 to 45, 47 and 55 under 35 U.S.C. § 103 is affirmed.

No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136(a).

AFFIRMED

IRWIN CHARLES COHEN)	
Administrative Patent Judge)	
)	
)	
)	
)	BOARD OF PATENT
CHARLES E. FRANKFORT)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
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JEFFREY V. NASE)	
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APPLICATION NO. 08/745,978

APJ NASE

APJ COHEN

APJ FRANKFORT

DECISION: **AFFIRMED**

Prepared By: Gloria Henderson

DRAFT TYPED: 22 Jul 99

FINAL TYPED: